WORLD HEALTH

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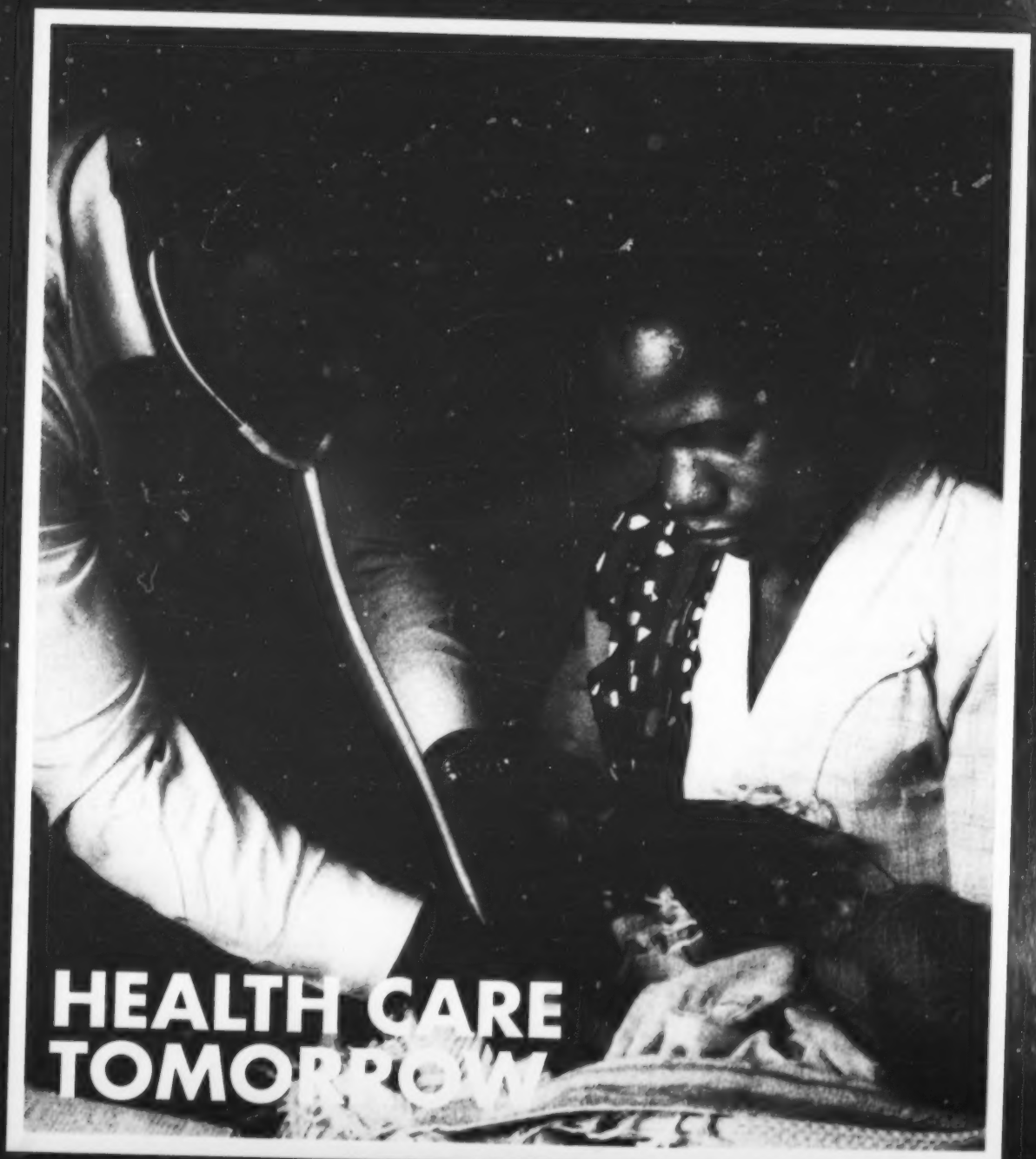

HEALTH CARE TOMORROW

WORLD HEALTH

THE MAGAZINE OF THE WORLD HEALTH ORGANIZATION

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Editorial
The future of health care

John H. Bryant

An attempt to focus on the future of health care forces us to acknowledge the widespread changes now under way that will multiply as we move into the future. These will not be simple trends with modest impact. A maelstrom of change is building up, global in scope, extending across all sectors. Seven major streams of change can be seen.

- *Democratization.* History is unfolding towards increasing democratization of societies. While there will be many social, political and economic expressions of this trend, the implications for the health sector will be large in terms of how decisions are made – between patients and their doctors; communities and health services; and managers and policy-makers. Democratization, decentralization, and empowerment will be pervasive.
- *Equity.* If there is one word that defines the values that will underlie the future of health care, it is equity. Two key concepts must be kept in view: *universal coverage* and *care according to need.* They require defining a population, assessing its needs, and ensuring that all receive care according to need, in keeping with available resources.
- *Ethics.* Interest in ethics in relation to health care is rapidly expanding, appearing in virtually every corner of the education of health personnel, research involving human subjects, and the care of patients and communities, and increasingly guiding policies.
- *Science and technology.* Health care finds its roots in science, and much of its growth in technology. The challenge is to use both well for the benefit of all who are in need.
- *Health care reform* is global in its spread, and entails more than fine-tuning of health systems – it is integral to larger social and political transformations. Health care systems cannot avoid reform, but neither can they be reformed independently of other societal movements.
- *Hospitals.* Are they part of the answer or part of the problem? Possibly both. Either way, the hospital of tomorrow will have to be closely integrated with the larger health care system, supportive of community-based services with both outreach and referral, linked into collaborative networks of regional sharing of information and resources, with balanced responsiveness to both technological advances and social need.
- *Roles and education of health personnel.* Health workers are inevitably at the centre of change of the health sector. Will they lead those changes, or impede them? The universities will play important roles in answering that question. The key lies largely in the perspective of the university on its role in society – cloistered behind its academic walls, or grappling with societal problems?

We face large unanswered questions about health care for the future. Given the enlarging capacities of science, technology, information systems and health care, will we be able to bridge over the inequities that afflict the global society? Or will these exciting advances simply add to the list of unshared gains? I have a clear and undiluted view on that question:

The sweep of change towards democratization and equity is too strong and too pervasive to allow technologies to remain unapplied to the needs of the underserved. There will be uncertainties and failures along the road, to be sure, but the direction and urgency of movement will be towards responding to these needs on a global scale. ■

John H. Bryant, M.D., Emeritus Professor, Aga Khan University, Karachi, Pakistan.

John H. Bryant

Frontline doctors of tomorrow

Charles Boelen

Excellence and accessibility will be the characteristics of tomorrow's doctors

The ideal frontline health professional of the future might be described as "the five-star doctor" – someone who is equal in excellence to a five-star hotel or restaurant, but is accessible to everyone from the richest to the poorest.

The challenges in the health field today can be stated in terms of the principles which must now guide our actions: (1) the need for health interventions to be relevant and of the highest quality, to be based on priorities, and to achieve the highest cost-effective results, and (2) the need for equitable access to health care for everyone.

Thanks to scientific and technological progress, various medical interventions promise to reduce suffering and prolong life, but their increasing cost sets limits on the choice of health care available and the way it is administered. At the same time, the users of health services are becoming better informed and more demanding.

To meet the challenges, in both affluent and developing countries, reforms to the health systems are under way or are being planned, and all health professionals must prepare themselves to play a fundamental role in applying these reforms. Let us examine the role of "frontline" professionals, since they are closest to the users of health services.

Depending on the social, cultural and economic context and the state of the local health system, frontline health personnel may be village health workers, nurses, or general practitioners (family doctors). In future the latter will probably be more and more sought after, inasmuch as they seem capable of finding an adequate solution to most patients' health problems in ways that satisfy them while proving cost-effective from the point of view of the health system. However, these family doctors will have to learn to evolve within the health services so as to respond better to the challenges of the future.

Users of health services are becoming better informed and more demanding.

Five roles

The frontline health professionals will have five principal roles to play.

- **Care-givers.** Besides giving individual treatment, frontline doctors must take into account the total (physical, mental and social) needs of the patient. They must ensure that a full range of treatment – curative, preventive or rehabilitative – will be dispensed in ways that are complementary, integrated and continuous. And they must ensure that the treatment is of the highest quality.
- **Decision-makers.** In a climate of transparency the frontline doctor will have to take decisions that can be justified in terms of efficacy and cost. From all the possible ways of treating a given health condition, the one that seems most appropriate in the given situation must be chosen. As regards expenditure, the limited resources available for health must be shared out fairly to the benefit of every individual in the community.
- **Communicators.** Lifestyle aspects such as a balanced diet, safety measures at work, type of leisure pursuits, respect for the environment and so on all have a determining influence on health. The involvement of the individual in protecting and restoring his or her own health is therefore vital, since exposure to a health risk is largely determined by one's behaviour. The doctors of tomorrow must be excellent communicators in order to persuade individuals, families and the communities in their charge to adopt healthy lifestyles and become partners in the health effort.
- **Community leaders.** The needs and problems of the whole community – in a suburb or a district – must not be forgotten. By understanding the determinants of health inherent in the physical and social environment and by appreciating the breadth of each problem or health risk, the frontline doctor will not simply be treating individuals who seek help but will also take a positive interest in community health activities which will benefit large numbers of people.

Therapeutic decisions have to be both efficient and financially justifiable.

- **Managers.** To carry out all these functions, it will be essential for the frontline doctors to acquire managerial skills. This will enable them to initiate exchanges of information in order to make better decisions, and to work within a multidisciplinary team in close association with other partners for health and social development. Both old and new methods of dispensing care will have to be integrated with the totality of health and social services, whether destined for the individual or for the community.

The ideal frontline doctor of the future might be described as "the five-star doctor" – someone who is equal in excellence to a five-star hotel or restaurant, but is accessible to everyone from the richest to the poorest. The skills of the doctors of tomorrow will serve the needs of all health systems and services; these abilities will be desirable to a certain degree in health personnel at every level.

Far from being a dream, these goals and skills must be seen as imperative for our doctors of tomorrow. ■

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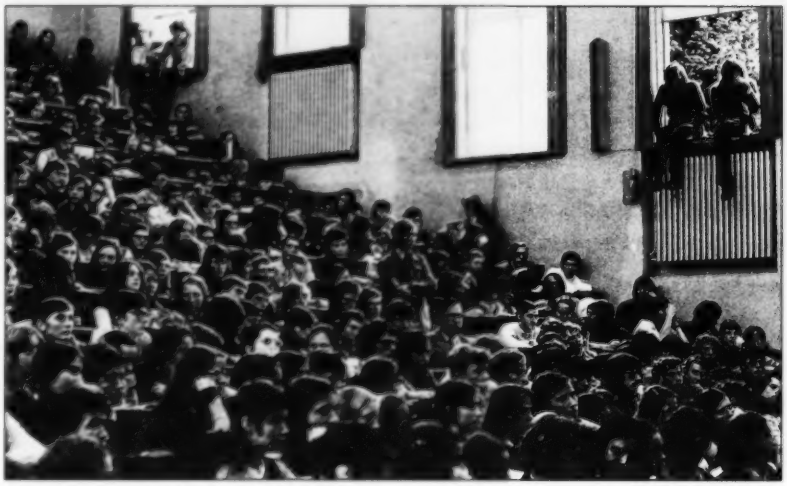
The frontline doctor ensures a continuum of care, taking into account the family and social conditions of patients.

A health education session in Nepal. Doctors must be excellent comunicators if they are to foster a partnership with families and communities.

How many doctors in 20 years' time?

Bui Dang Ha Doan

Within 15 to 20 years in many countries there will be an abrupt reduction in the numbers of practising physicians and a major increase in the total of elderly people – precisely those who require more medical care.



To what extent should recruitment of medical students be stepped up? It is a decision that will require a great deal of courage.

At the end of the 1950s, thanks to economic expansion, the world entered an era of high expectation. People everywhere aspired to more education, more medical care, more culture, more comfort – in short, better well-being in every domain. In the health sector, governments sought to promote equal access for all to health care and, at the same time, to make health care more abundant. In particular, from the mid-1960s, the number of faculties of medicine rose nearly everywhere and the recruitment of medical students was stepped up. A decade later, the total of newly graduated doctors had doubled or even tripled. This whole process was particularly striking in most of the industrialized countries, but many of the developing countries witnessed it too. The number of medical faculties in India rose from 44 in 1955 to 106 in 1980, while in Mexico they rose from 18 to 52 during the same period.

A doctor examines a young patient in Nepal. Can the ideal number of doctors per population ever be reached?

The result was not slow to appear. From 1975, in a great many countries, the total force of active doctors increased considerably. At the start of the 1980s a medical surplus was becoming apparent everywhere. Of course, this plethora of physicians in no way meant that people's medical needs were being met. Most often, it implied rather an overloading of the economic capacity of the nation, whose limited resources could not afford to finance the treatments dispensed by too many doctors. The public authorities in several countries then began to think seriously about reducing the number of admissions to the faculties of medicine. However, a significant reduction in university recruitment today only results in a drop in the annual total of new medical graduates about seven to ten years later, and that is exactly what is happening. In many countries, the annual output of newly

trained doctors only started to fall noticeably from the end of the 1980s or even at the start of the 1990s.

Moreover, any reduction in each year's addition of newly graduated physicians does not lead to an immediate fall in the total effective stock of the medical profession. There is a built-in delay. What is more, when a professional medical corps is very young, as is the case today, the numbers of doctors taking retirement are very small. Even if there is a reduction in the new arrivals, they are still more numerous than those who are quitting the profession. As a result, the medical profession is continuing to expand and the total numbers are still rising, although at a slower and slower pace. Stabilization point will be reached, in most countries, between the year 2005 and the year 2015. Unfortunately – and this is an important point – it will only last for a short period. In fact, towards 2010 to 2025, we shall see all those excess graduates who were encouraged during the period 1975–90 reaching retirement age. Each year, there will be a dizzy spiral in the numbers of doctors taking retirement. From 2015 in France, for instance, according to our calculations, those quitting professional work will each year exceed the level of 8100 – more than three times the annual total today of around 2400. France will not be alone in this; many countries, both industrialized and developing, will equally see this unusual kind of boom in two decades' time. So the total number of practising physicians will drop sharply.

In many countries, decreasing numbers of doctors will coincide with an abrupt increase in the elderly people in need of care.

Yet it is precisely around that period of 2010–25 that many countries will see a drastic rise in the total of elderly persons. The demographic projections of the United Nations show that people aged 65 and over, who in 1980 constituted about 9% of the population of Canada, for example, will see their proportion rise to 18% in the year 2025. In developing countries too, there will be an upsurge in demographic aging. The proportion of elderly in Brazil will rise from 4% in 1980 to more than 9% in 2025. For the Republic of Singapore the change will be from less than 5% in 1980 to more than 18% in 2025.

In other words, in a great many nations within 15 to 20 years there will simultaneously be an abrupt reduction in the total of active doctors and a major increase in the numbers and proportion of elderly people. Yet the elderly are precisely those who require more medical care. At the same time, the expected economic growth will no doubt set in train a still more intense quest for well-being and will further step up the demand for medical treatment. So in about two decades, we risk seeing a reversal of the situation. From an excess of doctors that many countries are experiencing today, whether industrialized or developing, we shall enter an era when the need for treatment may no longer be fully met because of the lack of medical staff in sufficient numbers.

Measures to mitigate the negative effects of this situation do exist and take various forms. But they need to be taken immediately. The problem is that, today, we are still in the middle of a period of medical oversupply. Those measures are consequently very difficult to take, whether from a psychological or from a political point of view. As always, we are going to need a great deal of courage to face up to the future. ■

Today, there is an oversupply of young doctors who will not retire before well into the next century.

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More than just a pill . . .

Caryn McHarney-Brown & Arthur Kaufman

Mrs K.L. is a 50-year-old Vietnamese refugee who has been in the United States for less than one year. Her husband is still in Viet Nam and she is unsure when he might be able to join her. She lives with her sisters and their two sons, who are in their early 20s. They drink a lot of alcohol and verbally threaten Mrs K.L. She complains of night fears, trouble in sleeping and sadness. There are no mental health resources for Vietnamese patients in her community.

J.S. is a 13-year-old middle-school adolescent who works until 10 or 11 p.m. as a political campaign helper. She comes home after school, fixes dinner and helps her 10-year-old sister with her homework. Her dad has two different jobs; her mom lives in another state. J.S.'s salary helps to pay for food and rent. She says "I like being grown up." She is sexually active but does not use birth control.

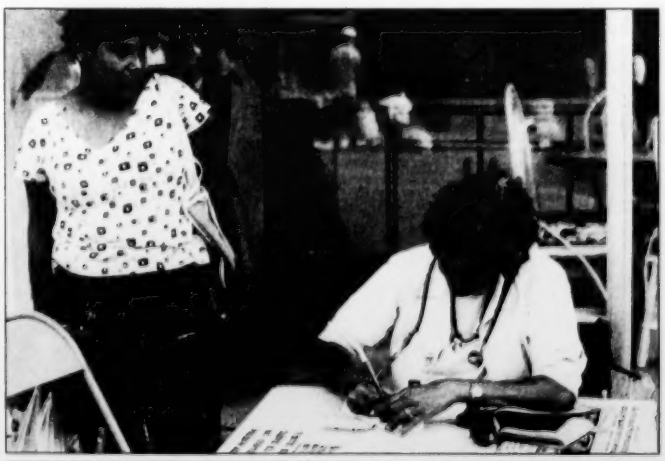
C.T. is a 12-year-old middle-school student who spends most of his time with his gang, one of 27 gangs at his school. He says they are his "family". His mom has a substance abuse problem, his dad is always in and out of jail. C.T. has already been arrested for several crimes.

Not just prescribing a pill. Broader action and new skills are needed to identify and deal with what harms and kills most people.

Physicians of the future must be prepared to care for individuals in the context of the larger community to which they belong. This entails acquiring skills in community assessment and advocacy.

What do these scenarios have to do with medicine and doctors in the future? Medical students and teachers of medical students are exploring the answer. Traditionally, the practice of medicine has focused on the individual patient and each one's individual physical diseases. Students of medicine spend years in learning minute details of how the body works and the things that can go wrong with the parts. In practice, office visits are directed at the treatment of ailments rather than the preservation and maintenance of health.

However, a look at the broad picture of health reveals that what harms or kills most people in the world includes unsafe drinking-water, violence against oneself or others, disintegration of the family, hunger and poverty. These sweeping



Even the more routine prescriptions should take into account broad social factors.

Very often the safety of the water supply is what determines the health of most members of the community.

Social difficulties can determine lifestyles that may have a negative impact on health.

People living in underprivileged conditions have far less chance of enjoying an optimum state of health.

societal crises are too large and too complex to be diagnosed by an X-ray or cured by prescribing a pill. They demand action on a broader level with a new set of skills.

Context of the community

Physicians of the future must be prepared to care for individuals in the context of the larger community to which they belong. The patient is not simply one depressed middle-aged Vietnamese woman but thousands of other refugees in a similar situation, without services; not just one adolescent with adult responsibilities and behaviours but all such youngsters at risk of neglect, sexually transmitted diseases and pregnancy; not just one confused, lonely 12-year-old but all the adolescents who turn to gangs, drugs and violence.

Physicians must acquire skills in community assessment and advocacy, and they must accept and respect ethnic and cultural influences on the care they give. They must struggle to overcome difficulties so that the health of the individual may reflect the health of the community.

Caring for Mrs K.L. may then include finding Vietnamese interpreters so that she can better express her worries. Preventing disease and social traumas for J.S. might require developing community services or school-based health centres to ensure her access to care. Helping C.T. to change direction could involve participation in social welfare programmes or after-school work-study programmes. ■

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Spreading the message of AIDS prevention. Protecting health requires action by the community.

The many faces of quality

Hannu Vuori

Quality of health care has many faces: an experiential face that the patients judge, a professional and scientific face assessed by the health care providers, and an economic and managerial face controlled by the health care managers.

Community participation is not just a slogan; it can help to solve common problems.

Everybody wants high quality health care. As health care providers, we want to produce it; as patients, we want to get it; as health politicians and tax payers, we want to have value for money. But what is quality of health care? Can it be measured? Are there effective ways to improve poor quality? Will such improvement use up resources that might be better used to improve, say, access or equity?

Inevitably, the funds available are limited. You cannot get everything you wish but will have to make compromises. You will also have to heed the needs and wishes of others since many people contribute to quality – health professionals, health care managers, health politicians, patients and their relatives. Which qualitative aspect you emphasise depends on who you are, what you use the services for and the amount of money you have at your disposal.

A long list of desirable characteristics is bound to result in high costs and conflicting expectations. For instance, patients may prefer small local hospitals and health centres because they are close to the users; the managers may find them wasteful; and the health professionals may find them at variance with their wish to work in technologically advanced centres. The combination of characteristics selected for the definition of quality depends on who has the greatest prestige and power. Normally, physicians have. It is therefore not surprising that quality is defined by professional or scientific-technical standards. This definition has guided most activities, the acceptable level of quality changing as medical know-how increases. In spite of its widespread use, the professional definition has increasingly become subject to criticism because it starts from the values and goals of one group only, neglecting those of the patients and managers, it stresses technology and can therefore increase costs, and it can maintain outdated treatment practices.

Medical know-how is one important determinant of quality, but how patients feel is important too.

Health professionals may be too quick to define quality by scientific and technical standards alone.

Little say by the patients

If quality is synonymous with medical know-how, it will rest completely in the hands of the providers. Patients will have very little to say as they cannot judge the application of professional knowledge. This approach can also jeopardize other desired goals of health care, particularly equity and adequacy.

To reduce the risk of professional dominance, the latest approach is to stress the patients' views on quality. This notion comes straight from business life where the customer is the king. While addressing some shortcomings, this approach in the context of modern health care has the problem of satisfying many customers who have different, often conflicting, needs and wishes. The patients and their relatives are the most obvious customers, but so are the referring physicians – particularly if they also manage the budget. Many countries have separated the roles of purchasers and providers. If this is the case, the purchasers are also customers whose needs the provider will have to satisfy.

Many hospitals systematically survey the opinions of the patients, but it is difficult to base concrete actions to improve quality on the results of such surveys. The views of the patients tend to change as the treatment progresses. What they want is not necessarily what they need. Advertisements, the experiences of friends or relatives and so forth may have induced them to demand services that will not benefit them or will be unduly costly. Yielding to such demands might result in giving popular but ineffective, even harmful treatments or in giving the right treatment in the wrong way. It takes a professional to judge what the medically defined needs are, what is the best treatment, and how to carry it out.

On the other hand, care of unnecessarily high technical quality wastes resources and thereby deprives other patients of necessary services. Here the managers enter the picture. They have to design and run the services in such a way that waste, duplication and mistakes will be minimized. The managers will also have to see to it that services are being provided within existing limits, financial or otherwise, and directives. The resulting management quality can be measured in terms of quality costs, i.e. the costs of not doing the right thing, right first time. The cost of accepting poor quality is always higher than the costs of resolving the problem.

Quality of health care has many faces: an experiential face as viewed by patients, a professional and scientific face assessed by the health care providers, and an economic and managerial face controlled by the health care managers.

Will such an array of different, often conflicting expectations allow a meaningful definition of quality of care and effective means to improve it? The answer is "yes", provided we accept a simple definition of quality assurance: solving together common problems.

Quality is not an absolute but a relative notion. The current approach for equitable health care as we enter the 21st century combines the expectations of the consumers, providers and managers and stresses:

- the individual situation;
- the needs and wishes of the consumers;
- the costs;
- reasonable professional and scientific standards; and
- the right level of optimization, not maximization. ■

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The points of view of both doctors and patients are equally important if the optimal quality of care is to be attained.

Striving towards health care for all

Kathryn E. Johnson

The health care debate in the USA has focused largely on access and financing, and very few people are asking whether reform will enhance health status and quality of life. The Healthcare Forum recently conducted a nationwide study on "What creates health? Individuals and communities respond", which took a fresh approach to looking at the issues of health and health care reform, leadership, and the role of the community. The study provides an up-to-the-minute picture of people's values, expectations and concerns about their communities and about leadership at both community and national levels.

The study was conducted for The Healthcare Forum by DYG, Inc., the social science research firm founded by Daniel Yankelovich, in cooperation with the National Civic League and funded in part by the W.K. Kellogg Foundation. Using both qualitative and quantitative research ranging from a national survey to an extensive literature search, DYG explored the American public's views on what is important to community life in the 1990s and what is needed to build a future of healthier communities. The main research was through a nationally representative telephone survey of 1000 Americans from all socioeconomic groups, aged 18 and older, conducted between 7 and 21 February 1994.

Aspirations and desires

The study showed that Americans believe their health is dependent on a broad range of issues beyond access to health care and financing, those surveyed indicating that their personal health was directly related to the health of their communities. The study also points to a failure on the part of today's leaders to address the issues that most concern the American public. In addition, the research clearly indicates that Americans believe that any agenda to promote healthier communities should include policies for dealing simultaneously with community issues such as crime, jobs, strengthening of families, and the environment.

America's symbol of public values and expectations. The USA is embroiled in a broad national debate that will lead to a major reform of the health care system.

The United States is embroiled in a broad national debate that will certainly reform the country's health care system through the next decade. But do the alternatives and issues that consume politicians and policy-makers reflect the public's values and aspirations concerning health? Citizens are probably the most underutilized resource in the community.

The study provides great insight into the aspirations and desires of the American public:

- There is clearly a growing appreciation for a new concept of health, one that moves away from the ideas of health as the absence of disease and the result of medical intervention, to a broader definition that includes both personal responsibility and quality of life. In fact, the public equates "healthy community" with "quality of life", and recognizes that one's own health is somehow related to the health of one's neighbours.
- There is growing caution about what national health care reform means. Of those polled, 69% support guaranteed health insurance for everyone, but they think "we should move to it step by step to make sure that we can afford it."
- The public wants to play a more proactive role in the health of their communities. The majority of Americans place more confidence in themselves and people like them than in any government or nongovernmental institution. The results of this study and DYG's own research of social change suggest that public de-

resource which can help [illegible]

mand for attention to quality-of-life issues and building healthier communities will blossom in the USA over the next several years. After a prolonged period of cynicism and detachment, the American public appears reinvigorated and committed to finding solutions to national, community and personal problems.

- People are discouraged about the health of their communities and are struggling to balance their individual needs with their obligations towards the community. Although Americans have been known for their optimism, they see innumerable obstacles to making their communities healthier and have little confidence that any existing institution can rectify the situation. The public mood is now shifting towards the belief that we, as individuals and as communities, can and must solve the serious problems that face us.
- The public lacks confidence in institutions that now provide leadership. Fewer than 30% have confidence in local government, business and community leaders as well as the media. State and federal officials and national business leaders fare even worse. People are considerably more confident in themselves and their friends to effect change than in conventional leaders. In fact, traditional sources of leadership are seen as obstacles to building a healthier community because people believe that traditional leadership – compartmentalized, competitive, command-and-control driven – has failed.
- Family security dominates perceptions about healthy communities. People indicated that a healthy community must include safe streets, a nurturing environment for children, economic security, and clean air and water. Crime is the number one issue of concern, but Americans are equally concerned about the state of their family life and many are rediscovering the family-centred lifestyle.

As we review the overall study findings, we see an American public – regardless of geographic region, socioeconomic status, race, religion or educational level – frustrated by the quality of life they see ahead for themselves and their children. While they believe that change is needed in the current health care systems and they firmly support universal coverage, they do not see the relevance of health care reform, by itself, to the overall well-being of their communities.

And yet, the people believe that, when armed with knowledge and minimal resources, they are able and willing to abandon narrowly defined self-interest and work in concert for the benefit of their communities. In the future, one can expect a shift away from the focus on individualism that marked the 1980s towards a greater willingness to give a higher priority to community needs. Citizens are now probably the most underutilized resource within the community. ■

Replacing the hospital

Laurence Malcolm

New Zealand's shift from hospital care to community-based services could provide an important international model for both developing and developed countries.

Recent radical changes within the New Zealand health system are leading to the phasing-out of hospitals as units of health care organization. Population-based services including, to an increasing extent, primary health care, are replacing hospitals as the units of organization and management.

For a long time New Zealand has had a population-based approach to the provision of health services. In 1989, after many years of debate and discussion, a system of 14 area health boards was established around the country. Each board provided comprehensive hospital and related services to the population, which ranged from 900 000 down to 35 000. Boards were also responsible for improving the health of their populations, and therefore included public health services within their scope.

A Maori family. In new Zealand, population-based services are increasingly replacing hospitals.

An important feature of the area health board system was service management. Every service – medicine, surgery, mental health, geriatrics and, in some cases, primary health care – became the key units of organization in almost all boards. Each service had both a hospital as well as a community component. For example, the Child Health Service in the Wellington Area Health Board, imaginatively named "Kiddie Corp," was responsible not only for the paediatric wards in the hospital but also for following up discharged children with specialist services, and developing educational programmes and preventive activities to promote child health generally among the population served.

More community-based

In 1993, following the proposals of the government elected in 1990, the 14 area health boards were converted into 23 crown health enterprises (CHEs). Each CHE has retained and extended the service management model and, in a recent survey, nearly all chief executive officers of CHEs indicated that they are no longer managing hospitals and were moving from hospital-based to more community-based services. They also indicated that shifts were occurring from secondary and tertiary towards primary care, and they were seeking closer relationships with primary care services in their areas.

The New Zealand system has also created a fully integrated purchaser, the regional health authority (RHA), of which there are four for the country's population of 3.4 million people. Each RHA is responsible for purchasing a full range of in-patient care and community-based services, both secondary and primary, including general practice. By shifting the emphasis away from hospitals and towards community-based services, the RHA is aiming at promoting more population-based services.

There have also been rapid developments in both general practice and community budget-holding (i.e., to have the authority and be accountable for expenditures from a fixed budget). In Christchurch, for example, almost all 195 general practitioners have formed a contracting body, called Pegasus, to be responsible for primary and eventually secondary services. They are forming the nucleus of a managed primary health care system which is expected to have a profound effect upon shifting the emphasis from secondary to primary health care.

Important initiatives to encourage indigenous Maori people to develop their own services are also under way. In Wanganui, for example, tribal groups have come together not only to provide their own health services, under contract with the RHA, but also to be responsible for referred primary and secondary care services. This is real community empowerment as envisaged at the 1978 Alma-Ata Conference on Primary Health Care.

This shift from hospitals to community services as units of organization, particularly for primary health care, could be an example to both developing and developed countries. The dominance of hospitals in all countries, particularly in the developing world, requires a major shift to empower community-led and community-managed primary health care to take its rightful and central place in all health systems. The approach in New Zealand could serve as a model. ■

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Hospital trends in Latin America

Humberto M. Novaes

Patient and health workers at a hospital in Tegucigalpa, Honduras.

Given the entry of private health insurance companies into various Latin American health care markets, public and private hospitals could become integrated into a network of services, thereby facilitating the exchange of patients between community health services and hospitals.

The Pan American Health Organization (PAHO), WHO's Regional Office of the Americas, is in the process of drawing up a register of some 15 000 hospitals in Latin America and the Caribbean. The principal objective of the *Latin American and Caribbean Hospital Directory* is to foster a Latin American network of related institutions that will facilitate communication between medical specialties or disciplines for the future exchange of information. The Directory will help the various subregions to share knowledge about common problems and public health subjects, and will also promote more detailed research on specific aspects of the functioning of hospitals.

Collecting information on the Region's hospitals called for total support from ministries of health, social security institutions, associations of hospitals and private clinics, and members of the Latin American Hospital Federation, as well as military and charitable organizations.

Instead of a lengthy questionnaire, we opted for a simple document that sought to collect only basic data. To date, 10 000 questionnaires have already been returned, and these give us a good general picture of the Region.

Of particular interest is the high number of private clinics with fewer than ten beds, which are probably of low clinical efficiency and will surely be replaced by hospitals of greater complexity in the future. The Directory will be useful not only for authorities in the various countries and specialists in the area but also for the three million or so hospital workers in Latin America and the Caribbean.

The basic data on hospital services provided in the Region will be available to all concerned public or private institutions. We hope this complex international project will serve to strengthen the relations among the Region's hospitals and to promote, in the near future, a network of Latin American and Caribbean hospitals for the exchange of experts, services and technology for all the countries.

The case of Brazil

With an estimated population of over 150 million, Brazil has suffered from rapid urbanization, and this has led to a shortfall in urban services – in particular a lack of basic sanitation in

A malaria patient in Brazil. Private and public hospitals are to be integrated in a broader network.

A cholera patient at an outpatient facility in Guatemala

Hospitals take up the majority of health budgets in many countries. Can they be better run? (see box).

the *favelas* or urban slums surrounding large cities. In 1987, Brazil had 501 600 hospital beds, of which 125 215 were public and 376 385 private. There were 2034 public and 5240 private hospitals, a total of 7274.

Of the sample of 2554 hospitals analysed for the purposes of the Directory, 1488 (58.3%) currently have some kind of computerized information system. High technology equipment was reported in 15.9% of the hospitals, while 129 institutions had computerized tomography (13%) and 15 had magnetic resonance imaging equipment (0.6%).

Brazil particularly, and Latin America as a whole, are going through a transitional phase at the present time. Moves toward democratization mean that public or government-subsidized hospitals are more subject to criticism from the mass media, while the population is much better informed of its social rights, including those pertaining to health.

Advantage for patients

Given the current trend towards privatization and the entry of private health insurance companies into various Latin American health care markets, and in view of the growing requirement for quality hospital care to compete for better service contracts with private industry, the Region is likely to see small hospitals being replaced by larger facilities, in urban areas, with at least 300 beds each. There will be a tendency for public and private hospitals to be integrated into a network of services, thereby facilitating the exchange of patients between community health services and hospitals. Outpatient consultations will be provided not only in the hospitals but also in satellite clinics managed by them, located in distant communities. Token payments may well be needed to limit the number of consultations at hospital emergency departments for patients who did not first visit their local clinics. ■

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Towards better-run hospitals

From 50% to 80% of all health expenditures in countries go to the hospitals. Public hospitals usually absorb more than 50% of government spending on health. The bigger the hospital, the harder it seems to keep the costs under control. So their role in the health system needs to be re-examined to make sure that they are more effective and better adapted to changing health situations.

The role of the big teaching hospitals in particular needs to be reassessed, since the poorer sectors of the population have always had only limited access to basic and intermediate care, and very rarely benefit from the technology and high-level competence of these institutions. Better management is called for in every domain.

The present trend towards privatization does not resolve all the problems. Hospitals should, in fact, be an integral part of the national health systems and their role and functions clearly stated and monitored, allowing firm control to be exercised on investments in high-tech medicine and on imports of costly drugs by countries. Hospitals should provide a well-defined number of interventions and an agreed level of performance and quality, and adhere to a list of essential pharmaceutical substances.

Courses in management should be included in the training of all health personnel, and the hospitals themselves could call in financial experts – two measures that would serve to avoid the risks of unnecessary waste. As for hospital staff, their role in health care needs to be much more fully recognized and they should be rewarded accordingly.

These were the conclusions of experts participating in a WHO consultation on the role of hospitals held last April. Experts will meet again early next year.

Medical practice and data-processing

J.L. Funck-Brentano

As access to computerized information increases, patients will be better able to take preventive action and to apply self-medication.

Medical practices of tomorrow are likely to be revolutionized by new techniques for collecting and disseminating computerized and processed data. These "expert systems" derive from what is loosely but wrongly called "artificial intelligence," as well as from the mass media, television and the CD ROM (compact disk "read only memory"), all of which ensure the interactive transfer of information orally, by written word and above all by imagery. In fact their use will lead to a new apportioning of responsibilities in medical decision-taking among the different medical specialists, other health personnel and the patients themselves.

For the doctors, the computerized treatment of data furnished by biological research as well as by all forms of computer imaging ought to promote the return of general practitioners to their former pre-eminence at the expense of their specialist colleagues. Being able to consult data banks and computerized knowledge bases means that everyone will have access to the most specialized knowledge. This will deprive the specialists of the exclusive knowledge that is the principal source of their power.

Access to the same information by nurses and hospital managers, under conditions appropriate to their skill in making use of it in their respective domains, will ultimately widen their field of action. This should encourage new and more fruitful relationships to grow up between them and the medical corps.

Above all, the patients' responsibility for their own health will be considerably increased as a result of this access to computerized information. They will be better able to undertake preventive action on their own behalf and to apply self-medication in routine treatment of certain chronic illnesses. This already applies to diabetes treated with insulin and, in the near future, will be the case for cancer patients treated by chemotherapy.

Let us hope that the redistribution of responsibilities that will stem from the electronic dissemination of information will foster a renewal of the doctor-patient relationship and – as a consequence – the rebirth of a new kind of medical humanism. ■

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The patient's right to know

Joe Collier

Patient and doctor are partners.

The essential components for a successful therapeutic dialogue are the right of all people to health, the patient's right to be informed, and the doctor's duty to explain.

The relation of doctor to patient is changing. Gradually, patients are moving from an essentially subservient position to one in which they are involved in discussions about their therapy and are treated as partners. The arguments in favour of such a partnership are compelling. Firstly, the patient has the right to decide about what is done to his or her own body. Secondly, from a pragmatic point of view, it is widely recognized that patients who are included in the therapeutic decision-making are more likely to take their medicines, comply with advice, feel better about the treatment and actually respond better to it. Thirdly, when treatment is unsuccessful, as it inevitably sometimes is, the burden of responsibility for the outcome can be more easily shared.

In May 1994 WHO formally endorsed the principle that before a medicine is prescribed, the patient must be provided with reliable and understandable information about it. By combining this right with those already established, WHO has put in place the three essential components for a successful therapeutic dialogue: the right of all people to health, the patient's right to be informed, and the doctor's duty to explain.

Although it is obviously only the patients who can say whether they understand the information they are given, it is probably the prescribers who must bear the main responsibility for judging the adequacy of their explanations. Prescribers must be able to produce the necessary information when offering treatment alternatives, and to share it with their patients so that they can decide whether they wish to receive the proposed product. It is the responsibility of those who set the prescribing standards to ensure that the basis for choosing a drug is sound enough to provide satisfactory answers to the patient's questions. At this year's World Health Assembly a second principle was also endorsed, namely that prescribers should have access to impartial and verifiable information.

The therapeutic dialogue

During each consultation the prescriber should raise the relevant questions of information and explain the proposed course of action, including the main risks involved and how they can be dealt with. All this should be done in such a way as to invite a dialogue, although the invitation is often not accepted. Even if it does not lead to a discussion, the doctor should always be aware of what would be needed if a patient insists on being fully informed.

Patients have the right to be informed, and doctors have the duty to explain.

Well-informed patients and families are more likely to make the most of prescribed treatment and advice.

There must be systems to ensure that the patient's right to information can be honoured. A multiple approach is most likely to ensure success, for instance a combination of professional codes, prescribers' terms of employment, published statements of patients' rights, and a culture in which the therapeutic dialogue is encouraged. All this needs legal underpinning so that keeping patients properly informed becomes a normal part of prescribing medicine; ultimately it is for the patient to decide how much information is exchanged. There will need to be some provision to determine the lengths to which prescribers need to go to ensure satisfaction. For instance, how much effort should be made to find an interpreter when the prescriber and the patient do not have a common language?

Occasionally there may need to be little or no exchange of information. Some patients may prefer to accept the prescriber's decision without discussion; others, such as the unconscious, the young or those with learning difficulties, may not be able to use their right to information. In such cases it will be necessary to decide whether to delegate the patient's right to others such as a parent, a relative or a guardian. Whatever the decision, arrangements should not be so rigid as to deprive the patient of treatment.

There will be many occasions when even the most conscientious doctor cannot know all the details about the treatment in question and the various alternatives. Sometimes it is impossible to know whether the available information is reliable and relevant to the patient (for example, information derived from studies on young men in England may not be transferable to an elderly woman in Tanzania). Also, the patient is liable to have various difficulties; even in an ideal setting there is rarely time for a full discussion, the stress of the situation makes it hard to follow or remember what is said, and unfamiliarity with the subject can impair understanding. All such factors contribute to the practical need for compromise while recognizing the patient's right to be fully informed.

After the examination, the doctor will discuss with his patient the best course to take.

At this stage a fuller understanding of the relevant rights and responsibilities is needed, among patients and prescribers alike. Already there is a drive to provide clear, reliable and informative leaflets and labels with all dispensed medicines, but much more will be needed to produce a favourable environment for therapeutic dialogue. Consumer groups, the media, schools and colleges, local administrations, patients' interest groups, even street theatres can all be enlisted and work together to create this environment.

Testing lung capacity. Healthy living is a decision that rests entirely with the individual but must be actively encouraged by health workers.

Much of the waste that occurs now through the irrational prescription and use of medicines can be curbed by a greater involvement of the public in upholding patients' rights to information. ■

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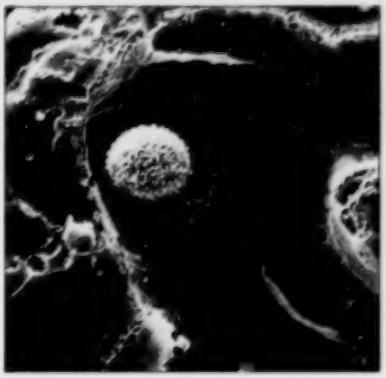
Breakthroughs in sight

Jeffrey A. Fisher

If we take a bird's eye view of medicine over the past century, the progress we have achieved has been nothing short of astounding. One hundred years ago, doctors were literally helpless against almost all serious illnesses, from infections to cancer. Today, physicians have a vast armamentarium of powerful antibiotics and effective vaccines to combat infectious disease, and sophisticated surgery, radiation and chemotherapy to treat cancer. Admittedly, progress against cancer hasn't been as impressive as against infections, but what we can do today is worlds apart from what the doctors of the late nineteenth century had at their disposal.

Needless to say, many challenges remain, some of which probably owe their existence, at least in part, to the same industrialized and technologically advanced society that has helped us to bring other diseases under control. Coronary artery disease, almost unheard of at the start of the twentieth century, is by far the biggest killer in the industrialized world. And, since people are living longer, conditions like Alzheimer's disease, cataracts and diabetes are much more common than they used to be. And now we are confronted with AIDS!



Human cells: targets of future therapies.

The good news is that we shall be more than ready to face these challenges. Compared with where medicine has already taken us, we shall be journeying into the scientific stratosphere. A world of medical miracles is being created every day in laboratories and hospitals, and how fast things will happen will surprise us as much as the breakthroughs of this century.

Many of the breakthroughs will be fuelled by advances in molecular biology, genetics and immunology. Over the past four decades, scientists around the world have been figuring out just exactly how our genes orchestrate the complex symphony of biochemical reactions that make our cells work. While there is still much more to be learned, enough has now been learned to move from the laboratory to patients' bedsides and doctors' offices.

Eventually, everyone will have a genetic profile performed on them at birth, which will highlight what diseases we are predisposed to develop.

My forecast!

Before the end of the decade, we will have routine genetic tests for colon and breast cancer which will be applied not only to inherited cases, but to all cases. This will lead to therapy – molecular and immunological – at a far earlier stage, when the disease is still localized to cells, and we can therefore expect tremendous

In the foreseeable future, self-palpation and mammography used today for early detection of breast cancer will be superseded by genetic tests.

increases in cure rates. Coronary artery disease will first be treated with lasers and other sophisticated devices but that too, within twenty years, will succumb to molecular treatment. Soon we will have compounds – called lazaroids – to treat stroke at the cell level. The first drugs are now available to treat the symptoms of Alzheimer's disease, but within 15 years there will be drugs to treat the cause. Cheap antioxidants (like Vitamin E) will be used worldwide to prevent cataracts. Even AIDS will not be able to withstand the onslaught of knowledge. The first vaccines are undergoing trials and a breakthrough in this field must follow.

Eventually, everyone will have a genetic profile performed on them at birth, which will highlight what diseases we are predisposed to develop, from hypertension to rheumatoid arthritis to cancer. Prevention will begin at the earliest possible stage.

Can we afford to do all this? Political and social infrastructures notwithstanding, we cannot afford not to. The cost for preventive and early treatments at the cell level may be fairly high, but the cost savings, both in currency and in human suffering, along this road are almost immeasurable. And these techniques will be available virtually everywhere in the world. ■

Equity for the poor

Roy Carr-Hill

There is now substantial evidence that a national health insurance scheme based on progressive taxation is both cheaper and more likely to ensure access for the poor.

A mother watches over her child in a hospital in Tanzania. Access to care is still a major problem for many less favoured groups.

The declaration of the goal of Health for All by the Year 2000 has had a powerful impact on policy-makers. But the targets are not easy to reach. Equity and accessibility to redress the "existing gross inequality in the health status of people" are important elements in the Alma-Ata Declaration, and there has been substantial publicity about the differences between countries in terms of health status and access to care. What do current tendencies tell us about the chances of the less favoured groups "catching up"?

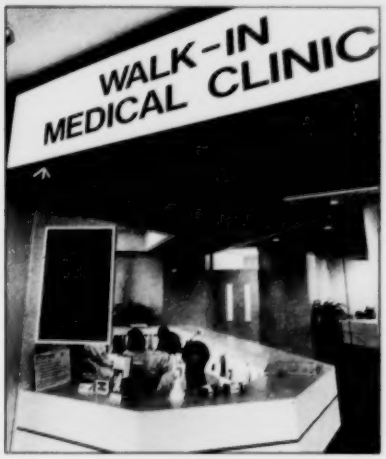
There has been frequent comment about the apparent persistence of inequalities in overall death rates – standardized for age and sex – between geographical regions and between social groups. Typically, even in the welfare systems in the North, the death rates among the poorest 10% are 50% higher than among the richest 10%.

The poorer die earlier than the rich

These "persistent" patterns have been taken as a reflection of differentiated patterns in standards of living and in the physical environment. In fact, in many European countries, there is convergence among the younger age groups; death rates no longer reflect clear socioeconomic differences between areas, possibly because medical technology has made deaths at those ages from socially-related diseases avoidable. Yet the poorer still die earlier than the rich.

Demonstrating disparities is comparatively easy; enacting and executing an appropriate policy to rectify the situation is much more difficult. Some political regimes may not be prepared to recognize the existence of inequalities. Moreover, for inequalities to be perceived, comparisons have to be made, and the way in which health care is administered will determine the data available. Views differ about what affects health and in particular the extent to which it is an individual rather than a collective responsibility: it could be argued that inequalities are irrelevant.

What life expectancy can the poor hope for?



Access to health and other public services is a major determinant of the health status of a community.

Then, much depends on the particular form of health care system which has evolved to deal with illness and to cure people and, in particular, the form of access. There is now substantial evidence that a national health insurance scheme based on progressive taxation is both cheaper and more likely to ensure access for the poor. The relative position and power of disadvantaged groups is also important.

To pay or not to pay?

The only legitimate concern of health care reform is health behaviour to promote healthy lifestyles and the accessibility to health services and other public services. In the North, competitiveness has been promoted as a panacea. Unfortunately, citizens often end up regretting the loss of services or their privatization, for which in the past they gladly paid taxes. Indeed, public finance continues to be the preferred way of funding the bulk of health care. In the South, the World Bank has been promoting the introduction of user charges in sub-Saharan Africa; but user fees could be financially devastating for some patients in countries where there is limited insurance cover.

Unhealthy habits adopted at a young age are bound to have a negative impact on life expectancy.

First we have therefore to know what causes health inequalities; then we have to examine whether health services can make any difference. There are five main determinants of health differences: natural biological variation; health behaviour; social conditions at work, at home and in the environment; access to health and other public services; and health-related social selection.

The solution to inequality, which can be simply stated but is unpopular among politicians who are concerned only with short-term survival, is to reduce over-consumption of resources in the North and to help the South towards self-reliance in food and essential goods and services. Such a revolutionary move – and it may yet come to pass in the 21st century – requires, first of all, recognition that inequalities in health are pervasive, and that there are no simple solutions; and secondly, it entails helping communities to monitor their own health and the factors leading to poor health so that they can identify, and seek solutions to, the most severe problems. ■

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Rehabilitation in the 21st century

Leon Reinstein

Dramatic technological advances, new treatments and "computerized" limbs will provide new tools for the rehabilitation services in the next century. The new technologies must be made available to people everywhere.

The major trends in rehabilitation in the 21st century will involve a variety of patient populations, different practice settings, and important technological advances.

As a result of improved public health measures, improved sanitation, and immunization, many Third World countries will see fewer patients with acute, infectious diseases and more patients with long-term, chronic, disabling conditions. When people live longer, degenerative arthritis and other problems of the bones, joints and muscles will interfere with their ability to perform routine activities of daily living. Dramatic technological advances will save many lives that would have been lost, but these survivors will be left with significant physical or mental disabilities. All of these patients will require rehabilitation services in order to return to their homes, their families and their jobs.

Today, acute stroke patients are treated with blood thinners (anti-coagulants) to prevent further strokes. In the future, acute strokes could be treated as "brain attacks" and patients will receive clot-busters to dissolve the clot immediately. At the time of the stroke, they could also receive other medications to prevent damage to brain tissue. Thus, patients who might have had a major stroke with marked physical disability requiring long-term care would be left with mild physical disabilities and could return home to their families. They will receive

nerves. Such patients could receive implanted computers which they can control with their intact muscles to send an electric signal to paralysed muscles below the injury and activate them for functional purposes. Similarly, amputees will have state-of-the-art artificial limbs with built-in computers to control and guide the movement of the prosthesis.

their rehabilitation in day hospitals (outpatient programmes, through home care or through community-based rehabilitation programmes.

Because the AIDS virus attacks the nervous system as well as the immune system, patients could have significant problems with function due to the weakness and paralysis of muscles. Even without a vaccine fo AIDS, however, new medications could mute the effect of the virus. Thus AIDS could become a chronic disease, with flare-ups and remissions, much like multiple sclerosis today, and many patients will benefit from both inpatient and outpatient rehabilitation programmes.

"Computerized" limbs

Spinal cord injury patients could receive nerve bypass grafts, like those that vascular patients receive today, to connect the intact portion of the spinal cord above the injury with the nerves below the injury, returning function to the muscles below the injury. Rehabilitation therapies could also focus on stimulating regrowth of damaged spinal cord

More people with disabilities

Prevalence rates of disabilities could increase as a result of the longer survival of population groups affected by disability, as well as improved methodologies for identifying people with disabilities. These two factors will have a greater impact in developing countries, where the current disability rates of 2-5% include only people with moderate and severe disabilities. Individuals with lesser disabilities, who have difficulty in seeing or hearing, for example, but who are not blind or deaf, are not at present counted.

In the industrialized world, where disability rates now range from 10% to 15% (including mild disabilities), the anticipated increase due to the survival of people with disabilities will be less than in developing countries. In addition, medical technology could reduce the visual, hearing and locomotor impairments which cause disabilities.

In conclusion, rehabilitation in the 21st century will involve new, exciting technologies and a variety of patient populations in different practice settings. It will be incumbent upon the developed countries to promote these new technologies in the developing world for the betterment of all mankind. ■

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Nursing in the years to come

Margretta Madden Styles

Nurses are becoming increasingly autonomous and moving into the field of independent practice.

Particularly in countries where many are illiterate, nurses are investigating new approaches to make community members partners in health care delivery, and not merely passive consumers.

In Mexico, nurses are educating rural inhabitants about nutrition and disease prevention. In Africa, they are counselling HIV/AIDS patients and families in their homes and explaining to whole communities in town hall meetings how to prevent the disease. In Italy, a nurse-run independent employment agency answers nursing needs at homes and in institutions. And in the USA, nursing centres give families and the homeless direct access to both curative and preventive care.

These are a few examples of how nurses worldwide are shaking off tradition and responding to new health needs, not only in health care facilities but in communities, homes, schools, the workplace and even "in the street". Their reach is also far wider, as they search out the more vulnerable: the poor, refugees, substance abusers, the elderly, persons with HIV/AIDS, and women.

As health care systems are being restructured, funding services diversified and hospital stays shortened, nurses are collaborating with other health professionals to provide the necessary skilled care, inside and outside hospitals. They are also becoming increasingly autonomous, creating independent support services that make the self-employed nurse directly accountable to the client.

Nurse-centred consultation models are already proving their success in helping families to care for low-weight babies discharged too early from hospital, the elderly, the handicapped and the chronically ill or mentally ill. And the trend towards independent practice is occurring not only in industrialized countries. In Benin, for instance, nurses recently began practising independently in response to a government freeze on nursing posts in hospitals.

In their campaigns to assure quality patient care, nurses are forming partnerships among themselves and with other health professionals, networking across borders, and working together to develop standards in their countries.

Innovative models

One foretaste of what nurses can achieve in primary health care is taking place in the Republic of Korea, where over 2000 community health posts are being staffed and managed wholly by specially trained community nurses. The 1994 Sasakawa Prize was awarded to the instigator of this project, Dr Mo-Im Kim, Dean of Yonsei University's College of Nursing in Seoul (a WHO Collaborating Centre for Nursing Development) and former President of the International Council of Nurses (ICN). This programme provides not only high quality care in remote areas but also contributes to overall community development.

Another new model for primary health care – this time to meet the needs of the frail elderly living in cities – has been developed by St

To respond to health needs, nurses need to go out and meet people, even in the street.

Luke's College of Nursing in Tokyo (also a WHO Collaborating Centre for Nursing Development). So far, it has established: 1) a nursing home for the elderly; 2) a volunteer support team consisting of district welfare commissioners, police, firemen and lay citizens; 3) a home care support centre; and 4) a programme to study ways of improving housing arrangements.

Education has been and will be the key to nursing's evolutionary progress as a profession and the fulfilment of nurses' multiple roles in primary health care. Besides illness prevention, health promotion and community-based care, nursing curricula in the future will put more emphasis on health care economics so as to arm nurses with the knowledge to implement cost-effective care. Courses will also include health policy and planning so that they can work better with decision-makers and ensure that the quality of care is not threatened when health services are rationed. Already in countries where much of the population will be illiterate for some time to come, nurses are investigating new approaches to make community members partners in health care delivery, and not merely passive consumers.

The importance of nursing research to scientific bodies of knowledge has been highlighted by the recent establishment of the National Institute for Nursing Research at the National Institutes of Health in the USA. Its purpose is to provide a strong scientific base for nursing practice.

New technologies

Nurses are also keeping pace with the fast-changing medical technologies by becoming highly skilled in the new technologies and in such specialties as nurse midwifery, anaesthesia, cancer and other illnesses. A significant change in nursing practice will result from computer-based patient records which give a picture of the patient from birth to death and will further empower consumers to be responsible for their own health. With the focus on wellness, nurses will thus be more productive, responsible and accountable for patient outcomes.

In developing countries where the AIDS pandemic is already rampant, nurses and other health professionals will also be battling with the re-emergence of such preventable diseases as malaria and tuberculosis, and the populations' sudden vulnerability to new infections. All of these dramatically increase the need for nursing care to the severely ill and the dying, as well as for health education, particularly environmental hygiene.

As mobilizers in communities, nurses are joining the townspeople in lobbying for accessible health facilities and for such basic infrastructure as roads, drinking-water, sewage and refuse disposal, transport to clinics, child care centres, and maintenance of the cold chain for vaccines.

Nurses around the world will continue to be an important link in the health care chain. A prime motivator in this regard is the International Council of Nurses, which is working through its 114 national nurses' associations to strengthen nursing forces worldwide. And to give nurses adequate support and recognition in all countries, WHO has created a Global Advisory Group on Nursing and Midwifery charged with finding "innovative and practical options to ensure the optimal contribution of nursing for the health of all people in the world." ■

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Community action

Women's action for health development

Kardinah Soepardjo Roestam

Delegates to the World Health Assembly and other health experts are invited to participate in Technical Discussions on a chosen theme of importance for international public health. In 1994 the theme was "Community action for health", with the accent on the need for a dynamic partnership between health professionals and individuals in the community so as to ensure a focused improvement in each community's health status.

Women in Indonesia are playing an increasingly large part in economic activity and community development, in addition to their domestic responsibilities. Over 40% of the country's workforce of 86 million consists of women. Recognizing their importance in national life, the government has established the State Ministry for Women's Affairs with the aims of fostering their well-being and harnessing their potential for the benefit of all. Considerable progress has been made, notwithstanding shortages of funds, facilities and trained personnel at the grass-roots level.

The author of this article, who was President of the 1994 Technical Discussions on Community Action, is seen here with Dr Hiroshi Nakajima, Director-General of WHO.

Community development projects

Management and leadership training programmes for women are being conducted, and self-help is considered vital in community development projects, which have the following characteristics.

- Women whose work is primarily in the home are being trained in handicrafts and other skills with a view to selling produce in local markets.
- Integrated health posts or *posyandu* are being developed in hamlets, villages and neighbourhoods. Questions of water supply, sewage and garbage disposal, and the quality of house construction are being addressed. Health service interventions are underpinned by health education, and communities obtain technical support from their local health centres. Communities are encouraged to provide finance to meet their own requirements in the health field.
- A special effort is being made to eliminate illiteracy. Reading materials contain messages on health, hygiene, sanitation, environmental cleanliness, and economic and agricultural subjects.
- A religious and cultural basis is considered to be necessary for the development of socially responsible attitudes and behaviour in relation to health and other matters.

Women working in local industries can improve the income of the family.

All Indonesian civil servants and their families enrol in the state health insurance scheme, which is funded by a levy of 2% on basic salaries. Members are entitled to free treatment, including the provision of

drugs, at government health centres and hospitals. *Dharma Wanita*, an organization of the wives of civil servants, has signed a memorandum of understanding with the scheme whereby a programme of health promotion and disease prevention is being set up.

In Jakarta, where the scheme has almost a million members, surveys have been conducted on disease patterns, utilization of the health services, and related matters, and the findings have led to the initiation of health education projects and the holding of seminars on self-care. Attention is given to the prevention of communicable diseases such as conjunctivitis, worm infection, and AIDS, and of non-communicable diseases, among them heart diseases, diabetes mellitus and hypertension.

Family welfare is the main target of community action for health.

Village-based health insurance and care

Dana sehat is a village-based health insurance scheme in which funds or marketable commodities are gathered in accordance with the tradition of mutual aid within the communities, known as *gotong royong*. The prime movers may be local leaders, local government staff, people working in nongovernmental organizations, including women's organizations, and ordinary members of local communities. Over 4000 villages have *dana sehat* schemes, covering about a million households. Some examples follow.

- A pilot prepaid community health programme was inaugurated during 1987 in Kerambitan Subdistrict, Bali Province. The target population comprised some 30 000 people in 15 villages. A survey indicated that 57% of the people desired only basic outpatient care, 5% wanted only inpatient care, and 27% preferred a combination of both. A preference emerged for a programme providing access to both public and private facilities. On these grounds it was decided to provide basic services, referral services and inpatient care, using the personnel and facilities of the two sectors. The running of the programme is greatly helped by the existence of the traditional *banjar* or hamlet organization and Pembinaan Kesejahteraan Keluarga (PKK), the Indonesian Family Welfare Movement.
- In 1988 a *dana sehat* movement was started in Candiroto Subdistrict, Central Java Province, with a potential membership of 49 000 people. The basic ideas were promoted, focus group discussions were held, meetings were arranged with village representatives, an operational plan was formulated and contributions were collected. Management of the scheme is in the hands of a village cooperation unit. The PKK has played an important role, especially in encouraging families to participate. The monthly payment is Rp 100 per person, 25% of which is retained for village activities connected with the scheme.
- In Jakarta a scheme is in preparation for the benefit of home handicraft workers and small-scale traders and food manufacturers. The initial steps being taken by health providers are similar to those outlined above for the Candiroto Subdistrict.

Women's organizations participate in establishing health insurance schemes.

Village polyclinics where women can give birth are maintained, managed and financed by local women's organizations. *Dharma Wanita* is involved in similar work, whereby rooms are provided by families in village houses for this purpose. The patients, accompanied by family members, have the opportunity to use the accommodation before, during and after delivery. Charges are made to cover the costs of maintenance, hygiene, sanitation, delivery, health education, demonstration of supplementary feeding, referral and so on.

Women, therefore, acting individually, in small groups, or through major nongovernmental organizations, now play a vital role in the development of health care in Indonesia. They are in a good position to disseminate information on health insurance, and educational programmes on this subject should therefore be directed at women's organizations. With a view to expanding community health insurance schemes, studies should be made on the perceptions, attitudes and knowledge of women in this field. Finally, it is necessary to improve the services provided under such schemes, to understand the constraints and problems they face, and to formulate action programmes based on mutual aid. ■

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A longer version of this article appeared in *World Health Forum*, 1994, *15*: 16–18.

WHO in action

Most blindness is preventable

Young blind men making tea in Bangladesh.

More than 35 million people worldwide are classed as "blind", and it has been gloomily predicted that – as demographic growth outstrips the ability of health services to cope with blinding diseases – this number could double in 25 years. In every area of the world, someone becomes blind each day; yet some 80% of all vision loss is either preventable or curable.

The most common causes are:

- cataract (clouding of the lens of the eye);
- trachoma (contagious infection, marked by scar formation and granulation within the eye);
- xerophthalmia (vitamin A deficiency blindness, primarily found in children);
- onchocerciasis (river blindness, a parasite transmitted by blackfly bites);
- glaucoma (pressure within the eye which, if untreated, leads to blindness);
- diabetic retinopathy (a complication of diabetes);
- physical injuries.

Onchocerciasis is the target of a massive control programme in West Africa which began in 1974 and celebrated its twentieth anniversary this year. With WHO as the executing agency in collaboration with several other UN agencies, the control programme – through spraying of the vector blackflies breeding in West African rivers – has succeeded in almost eliminating the infection reservoir from the human population. As a result, communities which have settled in fertile lands beside the rivers are no longer at risk of onchocerciasis. Twenty million people are now safeguarded against the threat of blindness in West Africa.

Since 1987, a new drug, ivermectin, which is suitable for mass treatment, has been given out free by the manufacturer, Merck & Co. Inc. This drug has made it possible to treat many more millions of people in other African countries who have onchocerciasis and risk going blind. Over three million people in thirteen out of sixteen African countries have received treatment in 1994 with this drug, which is taken once a year. A group of nongovernmental development organizations, working closely with WHO, is assisting these countries in setting up treatment programmes, which need to be expanded urgently since so far only 20% of over 17.5 million people worldwide infected with onchocerciasis have been reached.

Trachoma, provided it is diagnosed in time, can easily be treated by applying eye ointment; the great problem is precisely in case-finding among widely scattered populations living in dusty areas of the world, and then treating each individual. The same difficulty arises in making vitamin A tablets available to remote communities – one tablet will protect a child from xerophthalmia for six months. Cataract can be removed in a comparatively simple operation, and many thousands have visited eye-camps in different countries where this operation is carried out in mass campaigns; the patient walks away, with the operated eye bandaged, without needing to make an expensive stay in a hospital.

WHO is playing a significant role in all these activities through its Programme for the Prevention of Blindness. Epidemiological data on eye diseases are collected in countries in which urgent action is needed, and where there are good opportunities for disease control. WHO is also assisting countries in the planning of national programmes for the prevention of blindness; there is close collaboration with a network of international nongovernmental organizations supporting countries in need. The International Agency for the Prevention of Blindness coordinates much of the work between those nongovernmental organizations; it works closely with the WHO Programme through a particular Consultative Group for joint project developments.

Nevertheless, there is a chronic shortage of funds worldwide for dealing with all the causes of blindness, and the nongovernmental and charitable organizations play an important role in raising cash for this purpose. One example is Lions Clubs International, which in 1990 launched its global programme "SightFirst" with the target of raising US$ 130 million by the end of 1994; this target was reached early this year, and the final total will be more than US$ 150 million.

SightFirst, which operates in collaboration with WHO, draws on the fundraising abilities and experience of the 1.4 million members of Lions Clubs around the world. Besides training personnel in eye health management, it is using the mass media to educate the public in eye care awareness. A similar approach forms part of a large project for strengthening the national blindness prevention programme in India, emphasizing community awareness and access to cataract surgery; that project is being supported through the World Bank to the amount of some US$ 120 million. It is hoped that these particular efforts, together with all other projects and developments by national and international organizations and agencies, will provide at least the basic resources needed for effective blindness prevention up to the year 2000. ■

WHO in action

Eliminating leprosy:

Hanoi Declaration calls for stronger commitment

The "Hanoi Declaration on the Elimination of Leprosy" recognizes that "multidrug therapy, the combination of anti-leprosy drugs, as recommended by WHO, represents an unparalleled opportunity to master this millennia-old scourge of humanity".

This Declaration was unanimously adopted by delegates from 28 countries where leprosy is still endemic at the Conference on the Elimination of Leprosy, jointly organized by WHO and the Sasakawa Memorial Health Foundation and held in Hanoi, Viet Nam, in July 1994.

According to WHO, leprosy can be considered to have been eliminated as a public health problem when its prevalence rate falls below one case per 10 000 population. The Declaration stressed that "intensive and sustained efforts are still required to bring about elimination by the target date (the year 2000), and that national authorities, international bodies, donor agencies, national and international nongovernmental organizations and health professionals working in the field of leprosy must all step up their commitment to attain this goal".

Some countries have slackened their guard in the light of initial successes already made by multidrug therapy, and the Declaration urges that all concerned should give priority to increasing coverage and case-finding in all endemic countries. Although leprosy does not kill, it often leaves patients with crippling deformities. Even after the disease has been eliminated, a significant number of former patients will have to be treated. The Hanoi Declaration calls on all concerned "to ensure that disability prevention and management components become an integral part of leprosy elimination programmes so that patients are rehabilitated in their communities."

From left to right: Mr Yohei Sasakawa, President of the Sasakawa Foundation, Dr Hiroshi Nakajima, Director-General of WHO and Dr S. K. Noordeen, Manager of the WHO Programme for the Elimination of Leprosy, at the Hanoi Conference.

The Sasakawa Foundation has pledged a contribution of US$ 50 million over the next five years to the WHO Programme for the Elimination of Leprosy.

For more information on leprosy elimination, please read the *World Health* interview with Dr S.K. Noordeen, published on page 30 of our March–April 1994 issue (Vol. 47, No. 2). ■

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In the next issue

Poverty is a silent, pervasive and ongoing emergency, a time-bomb threatening the world's stability and the health of people. Access to health services may be one of the ways out. The November–December issue of *World Health* will highlight some of the intricate links between poverty and health in specific countries. ■

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